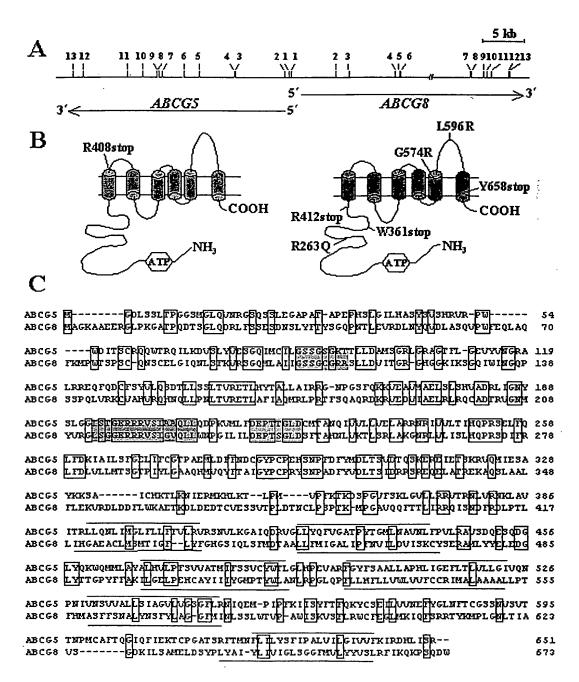
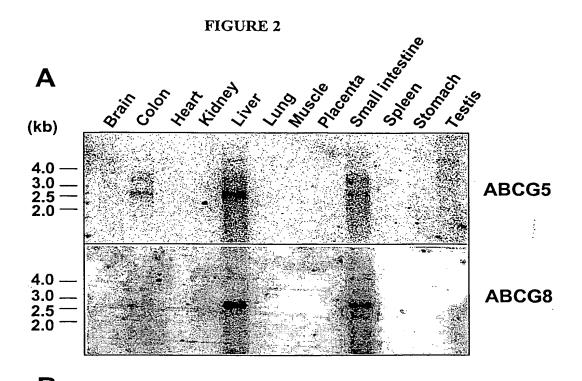
Atty. Docket No.: 18781-007320
Applicant: Helen H. Hobbs et al.
CG5 AND ABCG8: COMPOSITIONS AND METHODS
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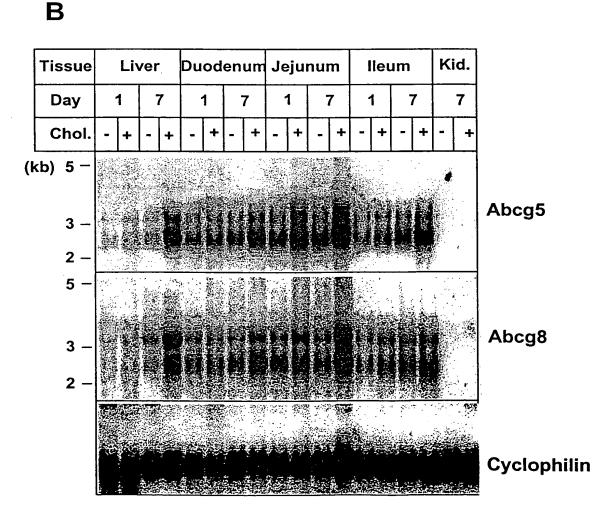
FIGURE 1

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FIGURE 3

A. ABCG8 exon 2 (reverse strand) thru ABCG5 exon 2 (forward strand)

 $\verb|ac| \underline{CTGGTAGGTGAGATCTCTGACCTCCAGAGTGTTGGACTGACCACTGTAGGTGAAGTACAGACTGTTGTCACTTTCCGA|$ $\underline{\textbf{GGAGAACAAGCTGTCCTGGAGGCC}} \textbf{ctgctgggagacatgtagt} \textbf{caatgttaagggtcacatgcagagagcgccttcccc}$ tgcttttaatgtttgagcatcaccccagetccattctctgatctttactaaaaaataataataagcaatggcttaaactat ggtcaccccgctgtgcttcagaacactagaatttatgtctcccatctcattttgatgcccaggatctgactgccaaccat gtgtgtgtgtgtgtgtgttgtgtggggaatcaaatccatagcatcaaatatactaggccaatcatgatactgacagaaccat agcaacacatccggggtcccctggggtttcttgttttcaaatcaattatctttaggagagatcttagttacttgcatgggc taqqaatttqttcctaqacacttqtactqatacaaaqtttcttccattqqcttcaqqaqtqqagggggctactqagggagg CCATTTTAAAATATTTTCCTTGGCACCCAGGAAGGATTCCTGAGGTTTTGACAAATTCTCTCTATTTTTCAAACCCTTAA ATATCTATTCGGCTGACACATTAATCAGCACGACTGTCAGAACATCATTTGAATCTGTGACAGGTGACACCCTAAAAAAG TGAAAGCGGGTTTATTTGTAGGTAACTAGTGTGGCTCCTGCTGGGCTACAATGTAACGTCTCCTTGTATTAACTTCTGGT TACATTCCTGAGTCAGAagcacagacacatgggaaaatccagagggcacaaaaagggagaaatgtgcagaaaacagtggt gcctggtggggacatatatggtaagtctttggcccaaggcacatacctggccctctgttgacccctgcagacaccatctc atctgcctctgcttagagtccaggctttcctatccctgtctgcagtgcgaggagctgtagaccatgggtcctggccct cqqtctctgtgaagacctgactcgaatatgagtaqaaagacggtqtggccgctatgtgagttctttgtagagtgagatgc gggcatatcagtgtcattgtctcccccccaccccaagccctgcagttgtcagtggcgggccatcacagggcacctacaac agtgggacctcacagaaggaacttgtaggtggcaggacctaggcacacttttgaatatagaattctgacagctcattgcc tttttagctgtaatctgaagggcaaaagccccacaccactgattttatatcctactcaggaagggagcatcaaag acgtagaaggagttatttccccatagacgtctgcctcatggggattctgacagcagagttgcctgttgctgtggtagtag gattggtcaatctcaggcaatcctgtctcccctagaacaggggactgaggcgtccctgttgaatgtggccatcctgttct $\tt ggtctttgtctccagaaaagtgggccgggtgtagaagctgggggaggggaggtcgtctttgctctttcccatact$ gccttctgcttcaaatcctgcccacaactcgagtcaaaggccatttatcaagcaaatgtttctccggttaatgaggaagg acacaattctgacgctcccaaacaagcgatcactatcacagccagtgtatttgtaaactgcctgaaaccaatgtgtagcc a tagaa a tattttttttttttatagaa aaaaaaa aaaataa at cgtgggctggggaatggctcagttgtagaa cacttggttcagaa acacttggttcagaa acacttggttcaqaaaqaqqaaaqtqqccctcaqaqqqatttatqacctqacttcccaqccqtqaqccctgccctttcaqtqaqqtttctct ${\tt aagcagagcctcaactctacaaggtagcgagatgcctcaacccctccttggcatttgttcctgacacctgccctttctct}$ ctgtctctctgtctattggtctgtctgtccctgcagcttctcagcctcacacagagacctttaggcttccccctggcctt ctctttcctcctggttctcaccaaacaatgccaaggactaacttactacataagtatggcaagcgtagcgatcctgttgt tacctccccgctgtctcttgactaccactgagattcttggtctgacagtcacatgggtcaacgctctgtgatggaatgt $\verb|catttggaaaacatcaatcccggtcattcacaggagcgtgctgtcgtggGGAAGTGACCTCAGAGGTCTCCTGGCTCCTG| \\$ ${\tt AGACTGTTCCCCTC} agac {\tt catca} acactg agg agac agg gccctg coge {\tt ccc} atttccattct acttg {\tt aagtccaggttgg}$ $\underline{CATCCTGAAGTACAGTCCCATTCCACAGCTGGGTCTCTTCTTTGGTTTTCTCAGCCAT}\\ \texttt{gaccagtgctgtttgtgccctt}$ tgtgtggcctcccctgctgttgggctctctctgtctttgctccttagagctggggcacctgagccctcctctgtgccagc CLLTCTCCCAGCATTCCTYTCTGGCAAACACTTCCTATAAACACCGTGTGTTCTGCCTATTGTCGAGATAAGGACACT ${\tt CTGGCTAAAGGTACATCAGATAATGGCATCGTTGGCCAAattggtgaactgttatctcacgaggattccagggctgggta}$ ggatcggacagggcactcccattggctcctcagttaaagctgccctggagccggacaggccactagaaaattcacttgca tttgcttcctgctagcc<u>ATGGGTGAGCTGCCCTTTCTGAGTCCAGAGGGAGCCAGAGGGCCTCACATCAACAGAGGGTCT</u> CTGAGCTCCCTGGAGCAAGGTTCGGTCACGGGCACAGAGGCTCGGCACAGCTTAGGTGTCCTGCATGTGTCCTACAGCGT $\verb|ggttgtctgtccagcagatcagggtgaaagtggacagtctgtaacaacagtgagtcgttcctcctcctcctcctgcgcag$ ctcgcccaccacctgtcctgtgtagatggagaaggctcggagagtgggggtgctggggggcacaaaatggaatgaacactg ctgaaggaatgcagggttcacttcaagaagaagcagtgtgcaggtgtaccatctcccagtcagagacccagtaatcaga gcagctaatgggaggcatgctccttgggtggtggccaacttgtcattatacctccaaggacaacagagtggtacataagg ctaaaacagagttgtcaacctgtccaggggcaactggggtagggtagggctgggagcaggggtctggcaccttccaggac cctactctgcctttgcccttgtgggatttcctttaaag<u>CAACCGTGTCGGGCCTTGGTGGAACATCAAATCATGCCAGCA</u> <u>GAAGTGGGACAGGCAAATCCTCAAAGATGTCTCCTTGTACATCGAGAGTGGCCAGATTATGTGCATCTTAGGCAGCTCAG</u> gtaagtgcctggggggscsggggctcctgtacttctaaggcaggctctgggaggctttggctcygtctaagcacaatgtt taagaagtragtttaagttgtagagaggcagccatgcatttggcatttgaatacaatctggtgacttgtctggctgccaa tagaacctagtaccaaagtgaaatcttgaggaaaatccctggaaagagtggaaagtcctgcctaacacgtaagtgccttc tttgcttgtttgattgactgtgatgctagagagcaaacccagagccttgggcatgctcagtaaaccttctgccccagcac tgtggtgcagggaggcctaggagagctaagagcccaggtcaagttgactctgttggtcttcctgtggagttccttcgaag

FIGURE 3 (CONTINUED)

The 4 exons are underlined and the conserved regions are in uppercase. The sequence ends in intron 2 of ABCG5 and is in the following order:

ABCG8	exon 2	(reverse	strand)
ABCG8	intron 1	(reverse	strand)
ABCG8	exon 1	(reverse	strand)

gap between genes

```
ABCG5 exon 1 (forward strand)
ABCG5 intron 1 (forward strand)
ABCG5 exon 2 (forward strand)
ABCG5 intron 2 (forward strand, partial)
```

B. Sequence Between ABCG5 and ABCG8 Containing the Control Sequences

gaccagtgctgtttgtgccctttgtgtggcctcccctgctgttgggctctctctgtgtttgctccttagagctggggcacctgagccctcctctgtgccagccttttttctccCAGCATTCCTYTCTGGCAAACACTTCCTATAAACACCGTGTGTTCTGCCTATTGTCGAGATAAGGACACTCTGGCTAAAGGTACATCAGATAATGGCATCGTTGGCCAAattggtgaactgttatctcacgaggattccagggctgggtaggatcggacagggcactccattggctcctcagttaaagctgccctggagccggacaggccactagaaaattcacttgcatttgcttcctgctagcc

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